

(3 Hours)

Total Marks: 80

- N.B. :** 1) Question No.1 is **compulsory**.
2) Attempt any **THREE** from the remaining questions.
3) Figures to the right indicate full marks.

- Q1. (a) Define in detail the various components of the Geographic Information System. [10]
(b) Explain with suitable example the applications of the Geographic Information System. [10]
- Q2. (a) Briefly explain about the Vector Data Model and describe in detail the Representation of the Spatial Features. [10]
(b) What is the Object Based Data Model? Explain detail the Classes and Class Relationships. [10]
- Q3. (a) What are the elements of the Raster Data Model? Explain in brief about LiDAR [10]
(b) Explain in detail the Digital Elevation Models and Define the InSAR. [10]
- Q4. (a) Explain in detail the Terrain Mapping in GIS. [10]
(b) Define the Viewshade Analysis in detail. [10]
- Q5. (a) What are the Application of Geocoding? Explain in detail the Location Based Services. [10]
(b) Define Dynamic Segmentation along with various applications of the Dynamic Segmentation. [10]
- Q6. **Short Note (Solve Any Four)** [20]
a) Thermal Remote Sensing
b) Optical Sensor
c) Precision Remote Sensing
d) TIN
e) Digital Globe
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